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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL J. BOWES

Appeal 2008-0053
Application 09/709,532¹
Technology Center 2600

Decided: August 14, 2008

Before ROBERT E. NAPPI, SCOTT R. BOALICK, and MARC S. HOFF,
Administrative Patent Judges.

HOFF, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Appellant appeals under 35 U.S.C. § 134 from a Final Rejection of claims 1, 2, and 4-38.² We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

Appellant's invention relates to a method for controlling data flow across a link. "[T]he method includes the steps of transmitting a packet

¹ Application filed November 13, 2000. The real party in interest is Broadcom Corporation.

² Claim 3 has been cancelled.

request message from a first station to a second station, then determining if the packet request message is valid. A request acknowledge message is transmitted from the second station to the first station, and it is then determined [if] the request acknowledge message is valid. The packet request message and the request acknowledge message each includes a control bit string, an identification bit string, and at least one parity bit” (Spec. 1).

Claim 1 is exemplary:

1. A method for controlling data flow across a link, said method comprising the steps of:
 - transmitting a packet request message from a first station to a second station;
 - determining if the packet request message is valid;
 - transmitting a request acknowledge message from the second station to the first station;
 - determining if the request acknowledge message is valid,
 - wherein said step of transmitting a packet request message further comprises the step of generating the packet request message, the step of generating the packet request message comprising generating a request non-payload bit string corresponding to a pre-programmed packet request register,
 - wherein the packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit, and
 - wherein said control bit string identifies whether a frame is a control frame or a data frame and said identification bit string correlates the packet request message with a corresponding request acknowledge message.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Beuk

US 5,774,673

Jun. 30, 1998

Meyer

US 6,611,495 B1

Aug. 26, 2003
(filed Jun. 7, 1999)

Claims 1, 2, 4-12, 14, and 16-38 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Beuk.

Claims 13 and 15 stand rejected under 35 U.S.C. § 103(a) as being obvious over Beuk in view of Meyer.

Appellant contends that Beuk does not teach generating a request non-payload bit string corresponding to a pre-programmed packet request register, as recited in claim 1 (App. Br. 7), nor configuring first and second identification numbers to correlate a packet request message with a corresponding request acknowledge message, as recited in claims 14 and 28 (App. Br. 13, 21).

Rather than repeat the arguments of the Appellant or the Examiner, we make reference to the Brief (filed December 13, 2006), the Answer (mailed January 31, 2007), and the Reply Brief (filed March 21, 2007) for their respective details.

ISSUE

There are two principal issues in the appeal before us.

The first issue is whether the Examiner erred in holding that Beuk teaches generating a request non-payload bit string corresponding to a pre-programmed packet request register, as required by claim 1.

The second issue is whether the Examiner erred in holding that Beuk teaches that the first identification number and the second identification number are configured to correlate the packet request message with a

corresponding request acknowledge message, as required by claims 14 and 28.

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

The Invention

1. According to Appellant, he has invented a method for controlling data flow across a link. “[T]he method includes the steps of transmitting a packet request message from a first station to a second station, then determining [if] the packet request message is valid. A request acknowledge message is transmitted from the second station to the first station, and it is then determined if the request acknowledge message is valid. The packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit” (Spec. 1).

Beuk

2. Beuk teaches a system “in which any apparatus (of a plurality) can establish exclusive bi-directional communication between a selected local application and an application in one or more other apparatuses” (col. 1, ll. 56-60).

3. Each apparatus 100, 101 capable of wireless communication teaches a message sending means (200), message receiving means (210), acknowledgement sending means (220), and acknowledgement receiving means (230) (Fig. 2).

4. The message sending means of one apparatus is in communication with the message receiving means of the other, and vice versa; likewise, the acknowledgement sending means of one apparatus is in communication with the acknowledgement receiving means of the other, and vice versa (Fig. 2)

5. The TYPE field taught by Beuk includes an “A/M” field, used to distinguish between an acknowledgement frame and a message frame (Fig. 3; col. 12, ll. 36-40).

6. An acknowledgement sending means of a given apparatus will only transmit an acknowledgement frame if the message receiving means correctly receives a group frame (col. 12, ll. 15-19).

7. Beuk teaches that the original apparatus compares the channels specified in both frames and discards the acknowledgement frame if the channels do not match, filtering out acknowledgement frames intended for other apparatuses (col. 4, ll. 43-48).

Meyer

8. Meyer provides a retransmission-based error recovery procedure that facilitates improved data transfer rates in comparison to known retransmission timer error recovery procedures (col. 3, ll. 2-5).

Dictionary definition of “correlate”

9. “Correlate” is defined as “to place in or bring into mutual or reciprocal relation; establish in orderly connection.” Random House College Dictionary 301 (Revised ed. 1984).

PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

ANALYSIS

Claims 1, 2 and 4-12

Appellant argues that Beuk does not teach generating a request non-payload bit string corresponding to a pre-programmed packet request register, as claim 1 requires (App. Br. 7). In the Examiner's view, the "non-payload bit string corresponding to a pre-programmed packet request register" is met in Beuk by the TYPE fields of frames 610 and 630 (Final Rej. 3; Beuk Fig. 3). The TYPE field taught by Beuk includes an "A/M" field, used to distinguish between an acknowledgement frame and a message frame (FF 5). According to the Examiner, each frame then corresponds to either a message receiving means 210 (if the TYPE field indicates a message) or an acknowledgement receiving means 230 (if the TYPE field indicates an acknowledgement); therefore, the TYPE field provides a correspondence with a particular message receiving means (Ans. 17).

With reference to Figure 2 of Beuk, each apparatus 100, 101 capable of wireless communication teaches a message sending means (200), message receiving means (210), acknowledgement sending means (220), and acknowledgement receiving means (230) (FF 3). For the TYPE register of Beuk to "correspond" to a "pre-programmed packet request register" (Beuk

Fig. 2, 210 or 230) as claim 1 requires, there would need to be something in the system of Beuk that examines the contents of the TYPE field to determine whether the particular frame is an acknowledgement frame or a message frame, and to route the frame to the appropriate “register” 210 or 230 based on the result of such a determination. However, Beuk contains no teaching that the TYPE field is examined, and a data frame routed to either the message receiving means or the acknowledgement receiving means (210, 230) as a result of such examination. On the contrary, the message sending means of one apparatus is in communication with the message receiving means of the other, and vice versa; likewise, the acknowledgement sending means of one apparatus is in communication with the acknowledgement receiving means of the other, and vice versa (FF 4). An acknowledgement sending means of a given apparatus will only transmit an acknowledgement frame if the message receiving means correctly receives a group frame (FF 6).

Because Beuk does not teach examining the A/M sub-field of the TYPE field and then routing an incoming frame to either the acknowledgement receiving means or message receiving means, we do not agree with the Examiner that the TYPE field of Beuk constitutes a request non-payload bit string corresponding to a pre-programmed packet request register. Beuk therefore does not teach all the elements of claim 1.³ We

³ Because we find that Beuk does not teach the claimed non-payload bit string, we need not reach Appellant’s argument that Beuk does not teach that the packet request message and request acknowledgement message each include a control bit string, an identification bit string, and at least one parity bit, as recited in claim 1 (see App. Br. 7).

therefore find error in the Examiner's rejection of claim 1, and of claims 2 and 4-12 dependent from claim 1, under 35 U.S.C. § 102(e).

Claims 14 and 16-38

With respect to independent claims 14 and 28, Appellant argues that Beuk does not disclose or suggest that the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message (App. Br. 13, 21). In Appellant's view, the teaching in Beuk that the channel field of group frame 630 is copied to the channel field of acknowledgement frame 640 does not meet the claimed correlation of the packet request message with a corresponding request acknowledgement message, because "copying a first identification number to another location does not produce a second identification number" (App. Br. 14, 22), and that "copying a field to another field is not the same as correlating a request message with an acknowledgement message" (App. Br. 14-15, 22).

We are not persuaded by Appellant's position. According to the Examiner, Beuk teaches

a receiving apparatus, which receives a group frame, specifying a specific communication channel, transmits in response an acknowledgement frame, which specifies the same communication channel Then the apparatus, which sent out the original group frame and now receives the acknowledgement frame, can compare the channels specified in both frames (determine whether the fields match) in order to filter out acknowledgements that are intended for other apparatuses. It is held that this copying of the channel field from the request message to the acknowledgement message provides a correlation between these two messages.

Ans. 18-19; *see* FF B3, B4. We agree with the Examiner that Beuk's teaching of copying of the channel field corresponds to the claimed "correlation." Appellant's Specification (see p. 108) does not provide an application-specific definition of "correlate." According to the dictionary definition of "correlate," i.e. "to place in or bring into mutual or reciprocal relation; establish in orderly connection," (FF 9), Beuk's copying of the channel field from the request message to the acknowledgement message is the very essence of "correlation." Causing the two fields to be identical certainly corresponds to bringing them into mutual or reciprocal relation.

Appellant's argument that copying a first identification number to another location does not produce a second identification number is also unpersuasive. Nothing in the claims requires the second identification number to be different from the first identification number.

Finally, we are not persuaded by Appellant's argument that if the channel field is merely copied to a different location, there would be no need to determine if the second identification number matches the first identification number (App. Br. 14). First, Beuk teaches that the original apparatus compares the channels specified in both frames and discards the acknowledgement frame if the channels do not match, filtering out acknowledgement frames intended for other apparatuses (FF 7). Second, given that Beuk meets the "determining" and "correlating" limitations, whether there would be "no need" to perform the "determining" step is not a relevant inquiry under 35 U.S.C. § 102.

Because we find that Beuk teaches every limitation of claims 14 and 28, we do not find error in the Examiner's rejection of claims 14 and 28 under 35 U.S.C. § 102.

According to Appellant, claims 16-27 are alleged to be patentable for the same reasons claim 14 is patentable, and claims 29-38 are alleged to be patentable for the same reasons claim 28 is patentable, with no further arguments presented. Because we sustain the rejections of claims 14 and 28, then, we also sustain the rejections of claims 16-27 and 29-38.

Claim 13

Appellant argues for the patentability of claim 13, dependent on claim 1, because the Meyer reference fails to cure the deficiencies in Beuk with respect to claim 1 (App. Br. 27). We agree with the Appellant, *supra*, that Beuk fails to anticipate claim 1. We further agree that Meyer fails to cure the deficiencies of the Beuk reference. We therefore find error in the Examiner's rejection of claim 13 under 35 U.S.C. § 103.

Claim 15

Appellant argues for the patentability of claim 15, dependent on claim 14, only in that the Meyer reference, like the Beuk reference, fails to disclose or suggest that the first identification number and second identification number are configured to correlate the packet request message with a corresponding request acknowledge message, as recited in claim 14 (App. Br. 27-28). We do not find Appellant's argument persuasive, because with reference to claim 14 *supra*, we find that Beuk does teach that the first identification number and second identification number are configured to correlate the packet request message with a corresponding request

acknowledge message. We therefore do not find error in the Examiner's rejection of claim 15 under 35 U.S.C. § 103.

CONCLUSION OF LAW

We conclude that the Appellant has not shown that the Examiner erred in rejecting claims 14-38. We conclude that the Appellant has shown that the Examiner erred in rejecting claims 1 2, and 4-13. On the record before us, claims 1 2, and 4-13 have not been shown to be unpatentable.

DECISION

The Examiner's rejection of claims 14-38 is affirmed. The Examiner's rejection of claims 1, 2, and 4-13 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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